CLAIMS

No claims are amended, added, or canceled. For the Examiner's convenience, a copy of all pending claims and a status of the claims is provided below.

1. (original) An apparatus for processing packets comprising:

an inbound memory for receiving data packets;

an outbound memory for transmitting data packets; and

circuitry capable of dynamically allocating memory from the inbound memory for use by the outbound memory or from the outbound memory for use by the inbound memory.

2. (original) The apparatus of claim 1 wherein the outbound and inbound memories are arranged to have a size that is smaller than a maximum frame size of the data packet to be processed.

3. (original) The apparatus of claim 1 further comprising:

a first processor for controlling the inbound memory; and

a second processor for controlling the outbound memory.

4. (original) The apparatus of claim 3 wherein the first processor controls the receiving of the data packets and processing of the received data packets.

5. (original) The apparatus of claim 4 wherein the outbound memory transmits the processed data packets.

6. (original) The apparatus of claim 5 wherein the first and second processors communicate with one another concerning available memory within the inbound and outbound memories, respectively.

7. (original) A method of receiving and transmitting data packets, the method comprising the steps of:

receiving data packets in an inbound memory buffer;

transmitting data packets with an outbound memory buffer; and

dynamically allocating memory from the inbound memory buffer for use by the outbound memory buffer or the outbound memory buffer for use by the inbound memory buffer.

8. (original) The method of claim 7 wherein the step of dynamically allocating includes the steps of:

determining that the inbound memory buffer requires additional memory; and

dynamically allocating memory from the outbound memory buffer for use by the inbound memory.

9. (original) The method of claim 7 wherein the step of dynamically allocating includes the steps of:

determining that the outbound memory buffer requires additional memory; and

dynamically allocating memory from the inbound memory buffer for use by the outbound memory buffer.

10. (original) An apparatus for receiving and transmitting data packets, the apparatus comprising:

means for receiving data packets in an inbound memory buffer;

means for transmitting data packets with an outbound memory buffer; and

means for dynamically allocating memory from the inbound memory buffer for use by the outbound memory buffer or the outbound memory buffer for use by the inbound memory buffer.

11. (original) The apparatus of claim 10 wherein the means for dynamically allocating includes:

means for determining that the inbound memory buffer requires additional memory; and

means for dynamically allocating memory from the outbound memory buffer for use by the inbound memory.

12. (original) The apparatus of claim 10 wherein the means for dynamically allocating includes:

means for determining that the outbound memory buffer requires additional memory; and

means for dynamically allocating memory from the inbound memory buffer for use by the outbound memory buffer.